

PROJECT NO. **RKMF 01-0054**

SPECIFICATIONS

FOR

MAINTAIN AIRFIELD PAVEMENTS IDIQ

NELLIS AIR FORCE BASE, NEVADA



OFFICE OF THE BASE CIVIL ENGINEER

APPROVED:

CONTRACTING OFFICER

DATE

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SECTION 01010 SUMMARY OF WORK

1. PART 1 - GENERAL

1.1. SUMMARY

1.1.1. **Description:** Contractor shall furnish all labor, equipment, material, manufactured articles, labor, transportation, supervision, and all else necessary to perform all operations in connection with successfully completing project **RKMF 01-0054, Maintain Airfield Pavements**, as specified herein and as shown on the respective project drawings.

1.1.2. Definitions:

1.1.2.1. **Contracting Officer:** The Contractor shall be responsible for providing complete and usable facilities upon the completion of work. Henceforth, the term *Contracting Officer* refers to the Contracting Officer or his/her designated representative, and the term *Contractor* refers to the general contractor. The general contractor is responsible for all subcontractors, suppliers, and consultants under his employ.

1.1.2.2. **Contracting Officer's Representative:** The Base Civil Engineer or his authorized representative is designated as the Contracting Officer's Representative (COR) (Construction Manager), for the purpose of technical surveillance and evaluation of the work performed under this contract. This designation in no way authorizes anyone other than the Contracting Officer to commit the Government to changes in the terms of the contract.

1.1.2.3. **Contract Clauses:** Where *Special Clauses* or *General Provisions* are referred to in the specifications, reference should be to *Contract Clauses*.

1.2. **LOCATION:** The project sites are located at Nellis AFB, Indian Springs Air Force Auxiliary Field (ISAFAP), and the Tonopah Test Range (TTR) Airfield; both TTR and ISAFAP are on the Nellis Air Force Range (NAFR).

1.2.1. The project site is located at Nellis Air Force Base (NAFB), located approximately nine (9) miles north of downtown Las Vegas on Highway U.S-93 (Las Vegas Blvd). NAFB consists of three main areas: the Main Base, Area II, and Area III. All the work in the subject project will be done on airfield pavements. NAFB has two primary runways, 03L/21R and 03R/21L, that are aligned parallel to each other in a northeast/southwest direction. Runway 03L/21R or "Inboard Runway" (closest to the base facilities) is 200 feet wide by 10,119 feet long, and is constructed of asphaltic concrete (AC) and portland

cement concrete (PCC). Runway 03R/21L or "Outboard Runway" is 150 feet wide by 10,051 feet long, and is constructed of PCC. Taxiways A, B, D, and E serve as primary taxiways between the runways. Taxiways F and G are parallel taxiways. One runway must remain operational at all times. The specific project locations are indicated on drawings accompanying each task order issued against this contract.

- 1.2.2. ISAFAP is located approximately 55 miles north of Las Vegas, Nevada on Highway U.S-95. All the work in the subject project will be done on airfield pavements. ISAFAP has one active runway, 08/26. Runway 08/26 is 150 feet wide by 9,015 long, and is constructed of AC and PCC pavement. Taxiways A, B, C, and D serve as primary taxiways between the runway and aircraft parking apron. The specific project locations are indicated on drawings accompanying each task order issued against this contract.
- 1.2.3. TTR is located approximately 253 miles north of Las Vegas, Nevada. All work in the subject project will be done on airfield pavements. TTR has one runway, 14/32. Runway 14/32 is 150 feet wide by 12,000 feet long, and is constructed of PCC pavement. Taxiways A, B, C, D, and E link the runway with primary parallel Taxiway F. Taxiways G and H connect Taxiways F with the Aircraft Parking Apron. The specific project locations are indicated on drawings accompanying each task order issued against this contract.

1.3. DESCRIPTION OF WORK

- 1.3.1. **SCOPE OF WORK:** The scope shall include, but not be limited to the following descriptions.

- 1.3.1.1. **RUBBER REMOVAL:** work includes removal of built-up rubber deposits from PCC or AC pavements of the runways in accordance with Section 02951 of the specifications.

- 1.3.1.2. **COMPLETE PAINT REMOVAL:** work includes total removal of paint from various airfield PCC pavements in accordance with Section 02763 of the specifications. The width of markings to be removed can range from six inches to six feet, and the thickness of the paint can be up to 1/8 inch. The paint removal operation shall not unacceptably (in the opinion of the Contracting Officer) damage the pavement surface. Unacceptable damage includes surface exposure of aggregate, pitting of the cement matrix, and resultant ridges or grooves on the pavement surface. Paint residue shall be disposed of in the same manner as normal debris from construction activities. This line item would normally be used when new paint is not intended to be placed at the location of the removed paint, or when the thickness of existing markings needs to be reduced.

- 1.3.1.3. **PARTIAL PAINT REMOVAL:** work includes removal of flaking and unbonded paint from various airfield PCC pavements in accordance with Section 02763 of the specifications. The width of markings to be removed can range from six inches to six feet, and the thickness of the paint can be up to 1/8 inch. The paint

removal operation shall not unacceptably (in the opinion of the Contracting Officer) damage the pavement surface. Unacceptable damage includes surface exposure of aggregate, pitting of the cement matrix, and resultant ridges or grooves on the pavement surface. Paint residue shall be disposed of in the same manner as normal debris from construction activities. This line item would normally be used when new paint is intended to be placed at the location of the removed paint.

- 1.3.1.4. **YELLOW REFLECTIVE STRIPING:** work includes painting six inch wide yellow reflective striping on various airfield pavements in accordance with Section 02763 of the specifications. The Contractor may be painting new lines, or painting over existing lines.
- 1.3.1.5. **WHITE REFLECTIVE STRIPING:** work includes painting white reflective striping on various airfield pavements in accordance with Section 02763 of the specifications. The width of markings can range from six inches to six feet, and some markings will consist of runway identification numbers, or entry control point dashed lines, as they are specified. The Contractor may be painting new markings, or painting over existing markings.
- 1.3.1.6. **RED REFLECTIVE STRIPING:** work includes painting 6" wide red reflective striping on various airfield pavements in accordance with Section 02763 of the specifications. Red striping is used to delineate security areas. The Contractor may be painting new markings, or painting over existing markings.
- 1.3.1.7. **YELLOW NON-REFLECTIVE STRIPING:** work includes painting 3' wide non-reflective yellow markings on taxiway shoulders or runway overruns in accordance with Section 02763 of the specifications.
- 1.3.1.8. **BLACK NON-REFLECTIVE STRIPING:** work includes painting black lines over existing markings on AC pavements with black non-reflective paint for the purpose of obscuring those markings, or painting black lines adjacent to yellow lines on PCC pavement for the purpose of outlining those lines, in accordance with Section 02763. Width of striping varies.
- 1.3.1.9. **GRAY NON-REFLECTIVE STRIPING:** work includes painting over existing markings on PCC pavements with gray non-reflective paint, in accordance with Section 02763, for the purpose of obscuring those markings. Width of striping can range from 6" to 12".
- 1.3.1.10. **LETTERING:** work includes painting reflective lettering such as the word "STOP" on pavements in accordance with Section 02763. Required dimensions of letters vary.

1.3.2. PERFORMANCE PERIODS:

1.3.2.1. The minimum size of a task order will be \$15,000 and the maximum size will be \$250,000. Task orders may be issued consecutively up to the maximum annual dollar amount; only one task order will be issued at a time. Separate task orders will be issued for project work at each of the three potential project locations (Nellis AFB, ISAFAP, or TTR). The Contractor may be given specific dates as to when he can accomplish all the work identified in each work area of a given task order. The performance period for a task order consists of a lead time period and a construction time period. Except for the first task order, the Contractor will be notified at least 45 days in advance of the start date of a task order performance period. The expected timeframe for the first task order performance period shall be between 23 July and 3 August 2001. The 45 days will be considered the lead time period. The construction period is determined directly by summing the quantities of each bid line item as follows:

- a) Rubber removal- one day per 80,000 SF per work area.
- b) Complete paint removal- one day per 5,000 SF per work area.
- c) Partial paint removal- one day per 20,000 SF per work area.
- d) Painting - one day per 50,000 SF per work area.

1.3.2.2. A work area is defined as an area given to the Contractor at one time such as one runway, one taxiway, part of the main apron, or combination thereof. All work to be done in a work area will be completed before the Contractor can move to the next work area. For instance, a runway will require rubber removal, partial restriping, and maybe some paint removal; all of this work would have to be completed before the Contractor would be able to have access onto the other runway or some other work area.

1.3.2.3. One work area will be given to the Contractor at a time; all work areas that make up a task order will be given to the Contractor consecutively. However, if the Contractor finishes all work in a work area before the specified finish date for that work area, he may not be able to start any work in the next work area until the specified start date of that work area due to potential conflicts with flying exercises. All efforts will be made to work around such conflicts and provide the Contractor with continuous work for the duration of the task order since it is in the Air Force's best interest to complete the overall project as quickly as possible.

1.3.3. **SINGLE, PRIME CONTRACT:** The work will be constructed under a single, prime contract.

1.4. AIRFIELD RESTRICTIONS:

1.4.1. General:

- 1.4.1.1. Aircraft and emergency fire department vehicles always have the right away. Construction personnel, vehicles and equipment must yield to taxiing aircraft at all taxiway crossing points.
- 1.4.1.2. The Contractor must only use designated taxiway crossing points, unless otherwise directed.
- 1.4.1.3. Runways must be cleared of equipment and personnel and be operationally ready within five minutes in the case of In-Flight Emergencies (IFE), unless the runway is physically unable to accept aircraft. No contractor vehicles, equipment, or personnel shall be on or crossing any active runway, except during construction period closures as outlined above or when clearance is requested from and granted by the control tower.
- 1.4.1.4. The Contractor shall be issued a hand held radio in order to be able to communicate with the airfield control tower. The on-site project manager shall be expected to continuously monitor the airfield frequency.
- 1.4.1.5. Unless authorized by the Contracting Officer, no contractor vehicles, equipment or personnel shall cross the painted red security lines located at various locations on the Airfield. Security Police are authorized to use deadly force in such breaches of security.
- 1.4.1.6. Other airfield contracts may be underway at the same time as this contract, and therefore the contractors may have to share haul routes, and work in the proximity of one another. The contractor shall fully comply with Contract FAR Clause 52.236-8, *Other Contracts*.
- 1.4.1.7. The Contractor may be required to cease project operations on the airfield during IFEs or as directed by the Installation Commander. These delays typically are for one to two hours at a time. Every effort will be made by Base Operations, Civil Engineering, and the Contracting Office to minimize all potential delays and to inform the Contractor as early as possible of such delays so that critical work can be effectively scheduled around such events. For bidding purposes, assume work stoppages will occur once during each project and last for two hours each occurrence.
- 1.4.1.8. All contractor personnel will be briefed by Base Operations prior to being allowed to drive out onto the airfield.
- 1.4.2. **Nellis Runways:** Runway closure times shall be specified by the Contracting Officer for each task order. One runway must remain operational at all times. Assume the runway on which the Contractor is scheduled to work will be closed to normal aircraft traffic.

However, the Contractor shall clear the runway as directed by the tower for IFE's or for other circumstances. Assume one occurrence per day on average.

1.4.3. ISAFAF Runway: Since ISAFAF has only one runway, assume the runway will remain open for the duration of a project performance period. Flying activity is minimal on weekends. The Contractor will have to clear the runway as directed by the tower for inbound and outbound flights.

1.4.4. TTR Runway: Since TTR has only one runway, assume the runway will remain open weekdays for the duration of a project performance period. The runway normally closes from 1930 on Friday to 0500 on Monday. The Contractor will have to clear the runway as directed by the tower for inbound and outbound flights.

1.5. SECURITY REQUIREMENTS:

1.5.1. Nellis Air Force Range Access Criteria. For access to the Nellis Air Force Range, these criteria must be met:

- a) Access has been granted by the appropriate authority
- b) The individual has a range user point of contact
- c) Access is for official Government business only
- d) The individual possesses a valid official photo identification
- e) The individual complies with all security requirements
- f) The individual signs a Secrecy (Non-disclosure) Agreement,
- g) Acknowledges the Range Security and Safety Briefing
- h) The individual is a United States Citizen

1.5.2 Visitor Access Procedures. All visitors who require access to NAFR must submit a NAFB Form 0-74 NLT 10 working days prior to the visit (15 working days prior for groups of 15 or more) to the Contracting Officer for each visit for approval. NAFB Form 0-74 will be completed with the following information:

- a) Name and rank
- b) Social Security number
- c) Security clearance
- d) Job title
- e) Date and place of birth
- f) If nationalized, provide naturalization number, port of entry, and date
- g) Organization
- h) Dates of visit
- i) Purpose of visit
- j) Mode of transportation
- k) Entry and exit locations

- 1.5.3 Property Removal Authorization. All property that is being removed from the range shall be accompanied by a property removal pass. Property that is not accompanied by the appropriate removal authorization will be confiscated and held, pending an investigation of the incident.
- 1.5.4 Property Removal Procedures. All Contractor property and equipment must be clearly marked. An inventory shall be submitted of property and equipment that the Contractor will bring on Range. The inventory shall include make, model, and serial number of high value equipment (i.e., power tools). Hand tools shall be included on the inventory, listed as "tool box with assorted carpentry tools." The inventory will be used to issue Property Removal Passes.
- 1.5.5 Search, Inspection, and Seizure. All vehicles, personnel, and hand-carried items, entering or exiting any range control point, or while on the range, are subject to search and inspection and seizure of any prohibited item, at any time. Random, unannounced, and regular searches and inspections will be conducted. These searches and inspections are intended to assure the prohibited articles are not introduced into, and government property is not removed, from the range or its facilities.
- 1.5.6 Vehicles.
 - 1.5.6.1 No privately owned vehicles will be permitted on TTR. The Contractor shall transport his personnel from outside the main gate to the work site via his commercial vehicles. The Contractor shall only drive on paved roads, taxiways, or runways except for the unpaved road leading to the landfill.
 - 1.5.6.2 Commercial Vehicle Authorization. Commercial vehicles may be permitted on Range, provided the driver has been authorized by the appropriate authority to drive on range, and that the vehicle is currently registered, licensed, insured, and used by personnel who have been authorized range access.
 - 1.5.6.3 Rental Vehicles. Rental Vehicles are permitted, provided a current rental agreement is produced and that the rental vehicle is currently registered, licensed, and used by personnel who have been authorized range access to conduct official business.
- 1.5.7 Range Travel.
 - 1.5.7.1 Prohibited Travel. Travel by personnel in any area that is outside of their regular assigned duty area is prohibited. Should special assignments require personnel to travel off roads, or into areas where they would not normally be expected to work, prior written permission must be obtained from the Security Administrator and the affected range user.
 - 1.5.7.2 Sightseeing. Sightseeing is strictly prohibited. Personnel who violate this requirement are subject to disciplinary action, withdrawal of access authorization, or arrest and prosecution.

1.5.8 Sensitive Equipment.

1.5.8.1 General. Certain equipment is considered sensitive and, without written authorization, this equipment is prohibited from use on the Range. Sensitive equipment shall not be brought onto the range without specific written authorization from the appropriate Installation Commander. Personnel who are found to be in possession of sensitive equipment without the appropriate authorization, will be challenged and the item confiscated pending an investigation. Personnel in possession of sensitive equipment without authorization, or suspected of improper use of sensitive equipment, are subject to withdrawal of access authorization, or arrest and prosecution.

1.5.8.2 Sensitive Equipment. The following is a list of sensitive equipment.

- a) Recording or copying devices of any type
- b) Electronic equipment that is equipped with a data exchange port which could be used to connect Automated Information System (AIS) equipment (excludes items such as pocket calculators, wrist watches, or data diaries, not equipped with a data exchange port).
- c) Computers and associated hardware
- d) Cameras and photograph equipment
- e) Binoculars and optical magnifying equipment
- f) Night Vision Devices

1.5.8.3 Request for Authorization. Sensitive equipment may be authorized for official use on and removal from the range. To obtain sensitive equipment passes, the Contractor will submit a letter that identifies the personnel who will operate the equipment. Requests for sensitive equipment passes shall contain the:

- a) - Name of the responsible person and Social Security Number
- b) - Period of use of the sensitive item
- c) - Area of use
- d) - General purposes of use
- e) - Method of identification
- f) - Identification of item(s) by description, specific serial number, and government control number
- g) - Copy of any licensing (e.g., FCC)

1.5.8.4 Use of sensitive equipment will be subject to current government restrictions.

1.5.9 **Prohibited Items:** Certain items are prohibited on range. Personnel who are found to be in possession of prohibited items will be challenged and the item confiscated pending an investigation. Personnel in possession of prohibited items are subject to disciplinary action, withdrawal of access authorization, or arrest and prosecution. The following non-government owned items are prohibited on Range, unless an exception is noted:

- a) Alcohol
- b) Controlled substances including illegal drugs and associated paraphernalia, except for prescription medicine
- c) Firearms, ammunition, and other dangerous or deadly weapons
- d) Explosives, incendiary, and explosives or deadly weapons
- e) Weapons: Mace, stun guns, clubs
- f) Two-way radios, CB Radios, Cellular phones (Except two-way or CB radios which are permanently installed in a commercial vehicle who's frequency has been approved by the installation commander.
- g) Recording or copying devices of any type
- h) Electronic equipment which is equipped with a data exchange port which could be used to connect Automated Information System (AIS) equipment. (Excludes items such as pocket computers, wrist watches, or data diaries, that are not equipped with a data exchange port.)
- i) Computers and associated media
- j) Binoculars, optical magnifying equipment
- k) Night vision devices
- l) Recreational vehicles
- m) Pets, wild or domestic
- n) Children under 18 years of age
- o) Other items prohibited by law

1.6. **SITE VISIT:** Contractors are urged to attend the site visit that will be scheduled by Base Contracting prior to the bid opening. (See Contract FAR Clauses 52.236-2, *Differing Site Conditions*, and 52.236-3, *Site Investigation and Conditions Affecting the Work*)

1.7. **NOTICE TO PROCEED:** At the beginning of a project, the Contracting Officer shall initiate a Notice to Proceed (NTP) to allow construction work to begin. The performance times for the project are described in paragraph "Performance Periods".

1.8. **GOVERNMENT-FURNISHED-PROPERTY (GFP):** Not Applicable to this project.

1.9. **WORKING HOURS:** The Contractor has the option of working 24 hours per day, seven days per week, excluding Federal Holidays. There may be times where a runway may only be

available at night for rubber removal. If the Contractor plans on working hours other than 6:00 am to 4:00 pm, Monday through Friday, he must submit to the Contracting Officer a work schedule at least one day prior. It shall note the activities planned and the planned hours of work so that the construction inspectors can plan their work schedule. The Contractor shall be responsible for furnishing and maintaining any artificial lighting required during nighttime operations. Lighting shall be directed as not to interfere with aircraft or tower operations. The lighting equipment shall be capable of being removed from the runway within five minutes of notification. The Government reserves the right to accept or reject night work the following day under natural light conditions after the work is completed.

1.10. COORDINATING AND SCHEDULING

1.10.1. **Work Coordination:** In order for the work to progress smoothly and cause minimal difficulties, it will be necessary for the contractor, construction inspector, project engineer, and Contracting Officer to maintain close and active coordination. Whenever work which will be "hidden" or which has not been scheduled will be accomplished, notice must be given to both the Contracting Officer and the contract inspector as early as possible to ensure inspections are accomplished as required. If proper inspections are not accomplished as a result of such lack of notification, the Contractor bears the risk of possibly removing completed work and reaccomplishing such uninspected work at no cost to the government. All work schedules will be coordinated with the appropriate representatives of the Contracting and Technical Offices. All work shall be programmed and accomplished in such a manner that minimum inconvenience will be caused to the government.

1.10.2. **Progress Schedule:** The schedule contemplated by Contract FAR Clause 52.236-15, *Schedules for Construction Contracts*, shall be accomplished on and in accordance with the instructions pertaining to AF Form 3064, *Contract Progress Schedule*, and as specified herein. A "network analysis system" may be used to supplement the proposed progress schedule.

1.10.2.1. The *Contract Progress Schedule* shall be plotted weekly, from Saturday through Friday, beginning with the date of receipt of the Notice to Proceed (NTP) through the contract completion date. Once approved, schedules will not be changed without Contracting Officer direction and/or approval.

1.10.2.2. The Work Elements, column B on the *Contract Progress Schedule*, shall be limited to 16 items and shall begin with the appropriate bond cost as item #1. Thereafter, each element shall be identified by the applicable, major element of work (e.g., 02000 Site Work, 03000 Concrete, ect.).

- 1.10.2.3. The percentage of each listed work element of the job shall be shown opposite each major work element in Column C of the *Contract Progress Schedule* and may be expressed in whole numbers or may be carried out to two (2) decimals.
- 1.10.2.4. In order to assist in evaluating the *Contract Progress Schedule*, as well as the progress of construction, the contractor shall supplement the *Contract Progress Schedule* with a *Schedule of Values* worksheet which will identify each subelement of work along with its dollar and percentage values.
- 1.10.2.5. High dollar value material items may be submitted for payment prior to installation in conformance with Contract FAR Clause 52.232-5, *Payments Under Fixed-Price Construction Contracts*, but must be clearly and separately identified in the Schedule of Values (either as a major or subelement of work) specified in the approved *Contract Progress Schedule*.
- 1.10.3. **Progress Reports:** The report contemplated by Contract FAR Clause 52.236-15, *Schedules for Construction Contracts*, shall be accomplished on and in accordance with the instructions pertaining to AF Form 3065, "*Contract Progress Report*", and as specified herein.
 - 1.10.3.1. *Progress Reports* shall be submitted weekly on the Monday following completion of the previous rating period.
 - 1.10.3.2. Whenever the cumulative percentage of the work is 5% or more below the scheduled percentage, the *Progress Report* shall be accompanied by a letter of explanation for the delay and a plan detailing how the contractor intends to get back on schedule.
- 1.10.4. **Estimated Line Items :**
 - 1.10.4.1. Estimated quantity line items are included as a work requirement of this solicitation and are reflected on the attached AF Form 66, "Schedule of Material Submittals".
 - 1.10.4.2. The contractor shall submit a daily running total of all such work completed. Submittals shall be in the format similar to that proscribed by Attachment #4 to the solicitation and may be supplemented with delivery tickets, waybills, worksheets, etc.
 - 1.10.4.3. The forms shall be completed for each workday of the performance period, even if no work was accomplished, and shall be submitted daily to the project inspector for verification and forwarding to the Contracting Officer.
 - 1.10.4.4. Payment of unit priced items will be made based on quantities that have been verified and accepted by the Government. At no time may the total used exceed the maximum total authorized for each line item

1.11. HAUL ROUTE

- 1.11.1. **Specified Haul Route:** The Contractor shall follow the specified haul route for this project, unless otherwise directed. The Contractor may make changes to the route only with the prior approval of the Contracting Officer at no additional cost to the Government. The Contractor shall restore the area to its original condition at the end of the contract period unless specific, written approval has been granted by the Contracting Officer.
- 1.11.2. **Haul Route Cleanup:** Refer to paragraph "Cleanup".

1.12. MATERIAL STORAGE

- 1.12.1. **Storage Area:** Unless otherwise indicated, no on-base storage facilities are available for contractor owned supplies, tools, materials or equipment. Buildings and structures which are part of the contract may be used for storage providing the space is not required for government occupancy and the contractor accepts full responsibility for the material stored therein.
- 1.12.2. **Storage Site:** A storage site for contractor-owned supplies, tools, materials, and/or equipment has been designated on the contract drawings. All job equipment and material not in use, but to be installed in or used on the project by the Contractor may only be stored in the area shown on the drawings. Security for the equipment and material storage shall be by the Contractor at his risk.
- 1.12.3. **Storage Area Improvements:** Improvement to the on-site area approved for storage by the Contracting Officer shall be at the Contractor's expense. The Contractor shall restore the area to its original condition at the end of the contract period. Contractor is responsible for the final clean up of all construction and storage areas.

1.13. UTILITIES SERVICES

- 1.13.1. **Water and Electricity:** In accordance with Contract FAR Clause 52.236-14, *Availability and Use of Utility Services*, all reasonable amounts of domestic water and electricity will be made available to the Contractor by the Government from existing system outlets and supplies. Normal quantities of electricity and water necessary to make final tests of completely installed systems will be furnished by the Government. With prior coordination the Contractor shall be given access to water hydrants to obtain water for construction activities.
- 1.13.2. **Telephone:** Commercial telephone lines are not available to the contractor. Separate communication arrangements must be made by the Contractor as necessary.
- 1.13.3. **Temporary Utility Connections:** The Contractor shall, at his own expense, make all temporary connections and install distribution lines. The Contractor shall furnish to the Contracting Officer a complete system layout drawing showing type of materials to be used and method of installation for all temporary electrical systems. All temporary lines

shall be maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer and shall be removed by the Contractor in like manner prior to final acceptance of the construction. The point of connection shall be coordinated with the Government technical representative prior to connection. If additional outlets are needed they will be provided at the Contractor's expense.

1.14. EMERGENCY MEDICAL TREATMENT: The Mike O'Callaghan Federal Hospital will provide emergency medical treatment to employees of the Contractor for injuries incurred while working at Nellis AFB NV. The Contractor will be required to reimburse the Government at an established rate for non-beneficiaries in accordance with AF Regulation 168-11. After receiving initial emergency treatment, the Contractor will provide the hospital with the name of a physician and/or hospital to which injured personnel can be transferred for further treatment and care. Follow-on care after initial emergency treatment will not be provided.

1.15. CODES: Conform installed system and components to current (as applicable) Underwriter's Listing (UL) Requirements, Uniform Building Code (UBC), National Electric Code (NEC), National Electrical Manufacturer's Association (NEMA), Institute of Electrical and Electronic Engineers (IEEE), American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), National Fire Protection Association (NFPA), and county, state and federal standards, codes, and laws. Any discrepancies between these standards and the contract documents shall immediately be brought to the Contracting Officer's attention.

1.16. NELLIS AIR FORCE BASE ENTRY

1.16.1. Conformance with Regulations/Directives: The Contractor shall conform to base regulations and directives pertaining to security, safety, traffic, fire and personnel clearances, insofar as they pertain to the Contractor's activities as directed by the Contracting Officer.

1.16.2. Short-Term Passes: Passes for less than 90 days may be picked up at the visitor control center at the Nellis AFB Main Gate by each individual with proper picture identification, proof of vehicle insurance and registration.

1.16.3. Long-Term Passes: Passes for 90 days or longer may be picked up in Bldg 20, Security Police Pass and Identification (ID) Flight, during their normal duty hours (7:30 a.m. to 3:30 p.m.) by each individual with proper picture identification, proof of vehicle insurance and registration

1.16.4. Unauthorized Activity: The contractor shall inform all personnel working under his/her jurisdiction (including subcontractor and supplier personnel) that access to areas outside of the immediate work area (excluding cafeterias and restrooms near the work site, direct haul and access routes, Contracting and Civil Engineering offices, and points of

supply and storage) is prohibited. Circulation of said personnel will be limited to official business only. Persons engaged in unauthorized reconnaissance of other contractor or government activity will be referred to the Contracting Officer for disposition. Infractions involving possible compromise of national security will be turned over to the FBI for disposition.

1.17. BASE REGULATIONS: Contractor employees and visitors are subject to the same restrictions as government personnel.

1.17.1. Smoking: Smoking is permitted in designated, outside smoking areas only. No smoking will be allowed within any base facility.

1.17.2. Seatbelts: The use of seatbelts by all vehicle operators and passengers is mandatory on Nellis AFB and in the state of Nevada. On Nellis AFB, vehicle operators and passengers caught not wearing their seatbelt will be issued a traffic citation and may lose their on-base driving privileges.

1.17.3. Firearms/Illegal Drugs: No firearms or illegal drugs are allowed to be brought onto Nellis AFB. By accepting a vehicle pass, each person gives their consent to a search of their vehicle while it is entering, on, or leaving Nellis AFB

1.17.4. Speed Limit: The speed limit on base is 25 MPH; in base housing areas and flightline it is 15 MPH; and in parking lots it is 5 MPH.

1.17.5. Parking: Contractor vehicles and equipment will be parked in common parking areas or as otherwise approved in writing by the Contracting Officer.

1.18. SECURITY

1.18.1. Physical Security: The contractor shall provide physical security for the materials and work under his control. If the contractor elects to provide security personnel the following must be adhered to:

1.18.2. Security Personnel: Contractor security personnel will not carry weapons on base (including MACE and night sticks). It is the responsibility of the contractor to notify security police, through the contracting officer, of security personnel who will be in the area.

1.18.3. Communications: In accordance with Air Force Instruction 33-211, all communications with DoD organizations are subject to communications security (COMSEC) review. Contractor personnel will be aware telephone communications networks are continually subject to intercept by unfriendly intelligence organizations. The DoD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls originating from, or terminating at, DoD organizations. Therefore, civilian contractor personnel are advised any time they place a call to, or receive a call from, a USAF organization, they are subject to COMSEC procedures. The

contractor will assume the responsibility for ensuring wide and frequent dissemination of the above information to all employees.

1.19. SAFETY AND ACCIDENT PREVENTION

- 1.19.1. **General:** Compliance with the current U.S. Army Corps of Engineers "*Safety and Health Requirements Manual*", EM 3835-1-1; *Occupational Safety and Health Act* (OSHA) Public Law 1910 and 1926; *Air Force Occupational Safety and Health* (AFOSH) standards, and current Nellis AFB safety regulations is mandatory. The prime Contractor shall be held responsible to insure that his/her workforce and any subcontractor or supplier workforce comply to the above safety requirements.
- 1.19.2. **Safety Briefings:** Contractors operating on base will be responsible to brief and ensure their employees, subcontractors, and suppliers comply with all traffic rules and regulations as well as entry procedures.
- 1.19.3. **Nellis AFB Security Police:** All instructions given by Security Police personnel will be complied with immediately. All on-base traffic rules are contained in Air Force Regulation 125-14, *Motor Vehicle Traffic Supervision*.
- 1.19.4. **Equipment and Tools:** Equipment to be used on the project shall be safe and in good operating condition. The Contracting Officer reserves the right to inspect any on-base equipment and reject such equipment if he considers it unsafe, in poor operating condition, or inappropriate for work.
- 1.19.5. **Explosive Operated Handtools:** The Contractor shall comply with OSHA (Occupational Safety and Health Act) Standard 1910.215(c) when utilizing explosive operated handtools. Storage of explosive cartridges on the installation will be in metal containers and limited to one day's supply. The contractor will provide adequate controls to prevent loss/theft of cartridges used and stored on the installation.
- 1.19.6. **Electromagnetic Emission Devices:** Electromagnetic emission devices (including but not limited to Radio/Radar Transmitters; Navigational Aids; Instrumentations; Signaling, Intrusion Detecting and Identification Devices; Mobile and Fixed Business Radio Communication Equipment; and MARS, CBs and Amateur Radio Stations) will be required to comply with the AFI 33-118, dated Jan 94. This regulation is available for inspection at the 99th Communications Squadron/SCX, Bldg 589, Nellis AFB NV.
- 1.19.7. **Use of Radioactive Devices on Government Property:** Under no circumstances will an unlicensed radioactive device be used on Nellis Air Force Base. Prior to using a radioactive device (i.e., soil or asphalt density meter) on government property, the contractor shall submit an application to the Contracting Officer for approval by the Base Radiation Protection Officer (99th Medical Group/SGPB). In accordance with Nellis AFB Instruction 48-101, the application shall be submitted thirty (30) to sixty (60) calendar days prior to the anticipated use and will consist of the following:

- A copy of the appropriate NRC license or State Permit to operate/own the radioactive device.
- A copy of the operator's qualifications and/or radiation safety training.
- Radiation dosimetry results for the operator for the past calendar year.
- A statement of the expected start date and the length of the contract (task order).
- A statement of expected storage and security requirements or other peculiar needs of the contractor.
- Copies of the last two leak tests, if appropriate.

1.20. FIRE PREVENTION AND PROTECTION

1.20.1. **Nellis AFB Fire Regulations:** The Contractor shall comply strictly with the Base fire regulations and become thoroughly familiar with and brief employees and subcontractors on the fire safety requirements applicable to this contract.

1.20.2. **Welding Permit:** No welding, cutting or open flame will be permitted without obtaining a *Welding/Cutting/Burning Permit* issued by the Base Fire Department. This permit shall be requested by the Contractor a minimum of one workday prior to required need. A permit must be obtained each time any welding, cutting, or open flame is required.

1.20.3. **Clean-Up:** The Contractor shall at all times maintain good housekeeping practices to reduce the risk of fire damage. All scrap materials, rubbish, and trash shall be removed daily from in and about the site and shall not be permitted to be scattered on adjacent property.

1.20.4. **Fire Extinguishers:** The Contractor shall provide fire extinguishers in accordance with the recommendations of the base fire regulations. Proper type fire extinguisher shall be available at each location where cutting and welding is being performed. Where electric or gas welding or cutting is done, interposed shields of incombustible material shall be used to protect against fire damage due to sparks and hot metal.

1.21. **ENVIRONMENT PROTECTION:** All work and Contractor operations shall comply with the requirements imposed by all applicable Federal, State, local, and base regulations and permits concerning environmental protection. The contractor shall submit a copy of a grading and dust permit obtained from Clark County, Nevada, for landscaping, grading, and trenching.

1.21.1. **Spills:** Should any hazardous substance or oil spills occur on this project, in addition to containing and removing such spill, the Contractor shall:

- during normal working hours, immediately report all spills in quantities of five (5) gallons or more to the Environmental Management Office at 652-3159 or 652-6106;

- after 4:30 p.m. or on weekends, immediately contact the Nellis Command Post at 652-2446; and
- forward a written, completed spill report to the Contracting Officer within three (3) working days after the occurrence.

1.21.2. Waste Materials: All waste materials generated by any work under the contract performed on a government installation shall be handled, transported, stored, and disposed of by the contractor and by his subcontractors at all times in accordance with all applicable Federal, state, or local laws, ordinances, regulations, court orders, or other types of rulings having the effect of the law, including, but not limited to Executive Orders 12088 as amended by E.O. 12580, 11988, and 11990; the Clean Air Act, (42 U.S.C. 7401-7671); the Clean Water Act (33 U.S.C. 1251-1387); the Endangered Species Act (16 U.S.C. Sec 1531-1544); the Toxic Substances Control Act (15 U.S.C. Sec 2601-2671); the National Historic Resources Protection Act (16 U.S.C. Sec 740-470w-6); the Solid Waste Disposal Act (42 U.S.C. 6901-6991); the Archaeological Resources Protection Act (16 U.S.C. 470aa-470-11); the Safe Drinking Water Act (42 U.S.C. 300f - 300j); the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136-136y); the Sikes Act Administration Regulations (29 CFR 1910); the Environmental Protection Agency regulations (40 CFR 50-87, 110, 112, 122, 136, 141-13, 162, 165, 166, 171, 240-246, 260-271, 280, 300, 302, 355, 370, 372, 403, 405-471, and 761); the Department of Transportation regulations (49 CFR 171-177); the Nevada Revised Statutes (Title 40, Sections 445.131-445.710 and 459.400-856) and the Nevada Administrative Code provisions implementing those code sections; and environmental planning, assessment, monitoring, and regulatory compliance provisions of the county codes of Clark, Lincoln, and Nye Counties.

1.21.3. Historical/Archaeological Artifacts: Not applicable.

1.21.4. Material Safety Data Sheets (MSDS): The Contractor shall submit MSDS for all products used on the jobsite.

1.21.5. Asbestos and Lead Based Paint: The Contractor shall not install any asbestos containing material or apply paint containing lead. If such material is detected, the Contractor shall remove it and replace it with acceptable material at no additional cost to the government.

1.22. DUST CONTROL

1.22.1. Dust Control Permit: Not applicable.

1.22.2. Excessive Dust: If in the opinion of the Contracting Officer, excessive dust is generated by the construction effort, the Contractor shall stop activity until adequate dust control measures are provided, at no cost to the Government.

1.23. WEATHER CONDITIONS

- 1.23.1. **Weather Hazards:** The Contractor shall satisfy himself/herself as to the hazards likely to arise from weather conditions. Complete weather records and reports may be obtained from any U.S. Weather Bureau Office.
- 1.23.2. **High Winds:** When warnings of winds of gale force or stronger are issued, the Contractor shall take every practicable precaution to minimize damage to persons, work, and adjacent property. These precautions may include removing all stored materials, tools, and/or equipment from exposed locations and removing or securing any temporary structures.

1.24. FACILITIES DAMAGES

- 1.24.1. **Responsibility:** Contractor shall be responsible for any and all damages to existing buildings, facilities, structures, pavements, curbs, walks, utilities etc. incurred by his work forces or equipment. Damaged areas shall be patched, repaired or replaced, and restored to original conditions by the Contractor to the satisfaction of the Contracting Officer and of authorities having jurisdiction there over, at no expense to the Government.
- 1.24.2. **New Work:** If new work is to be connected to existing work, special care shall be exercised not to disturb or damage the existing work more than necessary. All damaged work shall be replaced, repaired or restored to its original condition at no cost to the Government.
- 1.24.3. **Damage to Utilities:**
- 1.24.3.1. **Notification Requirements:** In the event of any contractor-caused utility failure and/or disruption, the contractor shall first make the area safe, then immediately contact the Contracting Officer (652-9121) and Base Service Call Desk (652-2652).
- 1.24.3.2. **Liability to Repair:** If the damaged utilities were previously known or shown to the contractor, or there is negligence on his part, the utilities shall be repaired by the contractor in a timely manner at no cost to the government.

1.25. SUBMITTALS

- 1.25.1. **AF Form 66, Schedule of Material Submittals:** Submittals required under each section of these specifications and as listed on AF Form 66 shall be prepared and provided as specified in *Section 01300*.
- 1.25.1.1. Contractor shall identify a “required submission date” for each item specified on this form. Contractor shall ensure each specified date provides adequate time to process the requirement and allows sufficient order/receipt time prior to the projected installation date.

1.25.1.2. Whenever materials or drawings are required to be submitted by the Contractor for approval, and the material or drawings submitted are at variance with the specifications or Government drawings, but are approved by the Contracting Officer inadvertently and without consciousness of the variance, then the approval shall not be final unless the Contractor expressly noted on the submittal that "This material or drawing varies from specifications in the following aspects."

1.25.1.3. See *Section 01300* for additional information.

1.25.2. **AF Form 3000, Material Approval Submittal:** Each submittal shall be transmitted under an AF Form 3000 (AF3000), "Material Approval Submittal", and shall be prepared in accordance with the Instructions on the reverse of the form and in Section 01300, "Submittals".

1.26. **WASTE AND DISPOSAL:** There are no waste or disposal areas available on the bases; the Contractor will have to make arrangements at an off-base location in accordance with local and state codes for disposal of waste generated from the site. For each project, the Contractor shall be responsible to submit all dump receipts to the Contracting Officer, and submit an estimated quantity of material that is going to be recycled.

1.27. QUALITY CONTROL

1.27.1. **Contractor Responsibilities:** The control of quality by the contractor may relate to, but is not limited to--

- Construction processes, to ensure that the product is produced to, and meets, the contract's technical requirements;
- Drawings, specifications, and engineering changes, to ensure that construction methods and operations meet the contract's technical requirements;
- Testing, examination, and inspection to ensure that practices and products to ensure that only conforming practices, equipment, processes, supplies, and material are provided to the Government;
- Technical documentation, including drawings, specifications, handbooks, manuals, and other technical publications, as required by the contract;
- Preservation, packaging, packing, and marking; and
- All other procedures and processes for services to ensure that services meet contract performance requirements.

1.27.2. **Quality Control Program:** The Contractor shall provide and maintain a *Quality Control (QC) Program* as required by Contract FAR Clause 52.246-12, *Inspection of Construction*, which will assure that all supplies and services provided conform to

contract requirements, whether constructed or processed by the Contractor, or procured from subcontractors or vendors. Such system shall require personnel of the contractor's organization to perform, or cause to be performed, inspections of the scope and character necessary to achieve quality construction at all times. The authority and responsibility of QC personnel shall be prescribed by clear, complete, and current instructions, and will normally be provided to the Contracting Officer at the pre-performance conference, but in any case prior to commencement of construction.

1.27.3. Quality Control Records: The Contractor shall maintain current QC records in an appropriate format of all inspections and tests performed. These records shall provide factual evidence that the required inspections or tests have been accomplished; indicate the results, the nature of any defects and causes for rejection, the proposed remedial action, as well as what corrective action(s) have been taken. The Contractor shall not build upon or conceal any feature of the work containing uncorrected defects. Quality inspection records shall be available for review by the Government throughout the life of the contract and shall be maintained a minimum of three years after the contract has been completed.

1.27.4. Notice of Non-Conforming Work: The QC, or other designated, representative shall acknowledge receipt of notification of non-conforming work (for technical, safety, or other reasons) as requested by the Contracting Officer. Such non-conforming work shall be immediately replaced or corrected as necessary. Immediately bring any disagreements to the attention of the Contracting Officer, in writing, for resolution.

1.28. LAYING OUT WORK

1.28.1. Layout: The Contractor shall verify dimensions and elevations indicated in layout of work. Discrepancies between drawings, specifications and existing conditions shall be referred to the Contracting Officer in writing before work affected is performed. Failure to make such notification shall place responsibility upon the Contractor to carry out work in satisfactory, workmanlike manner at no additional cost to the Government. Any duplication of work made necessary by failure or neglect on the Contractor's part to comply with this function shall be done at his sole expense.

1.28.2. Field Dimensions: The drawings accompanying these specifications indicate generally the design and arrangement of all apparatus, fixtures, accessories, etc., necessary to complete the work required. The exact location or arrangement of equipment is subject to minor changes necessitated by field conditions and shall be made as required without additional cost to the Government. Measurements shall be verified by actual observations at the construction site, and the Contractor shall be responsible for all work fitting into place in a satisfactory and workmanlike manner meeting the approval of the Contracting Officer.

1.29. **EXCAVATION:** Not applicable.

1.30. **UTILITY SERVICE INTERRUPTION:** Not applicable.

1.31. **AS BUILT DRAWINGS:** Not applicable.

1.32. **CLEANUP**

1.32.1. **Work Site:** The Contractor shall maintain site free from construction debris and trash. Contractor is responsible for the removal of such debris and trash daily. No trash or debris shall be disposed of on the base or any other Federal Lands, nor shall it be disposed of in violation of any Municipal, County, or State Ordinances.

1.32.2. **Haul Route:** In an effort to minimize FOD (Foreign Object Damage) potential to aircraft, all mud, dirt, debris, foreign objects, or spills of any kind from the Contractor's operations (including subcontractors and suppliers) on taxiways, runways, parking aprons, hard surfaces, streets, and parking lots used as access to the work or staging areas, shall be cleaned immediately after use. Cleanup shall be performed to the satisfaction of the Contracting Officer and the Airfield Manager. Contractor may be held responsible for FOD to aircraft, if the FOD is attributable to his negligence or failure to comply with contract requirements.

1.33. **FINAL INSPECTION**

1.33.1. **Final Inspection Notification:** The Contractor shall notify the Contracting Officer in writing, two (2) calendar days in advance of the final inspection. Final clean-up shall be made prior to a final inspection, and consist of cleaning the site and adjacent areas in the immediate vicinity as required by the Contracting Officer.

1.33.2. **Acceptance:** Final acceptance will not occur until all work, including clean-up, has been accomplished and no discrepancies remain.

1.34. **CONTRACT COMPLETION AND CLOSE-OUT:** Upon completion of the work and prior to approval of final payment, unless specified to be provided earlier, the contractor shall furnish, to the Contracting Officer:

- **Final Material Submittals:** Prior to final payment, the Contractor shall provide all remaining submittals (e.g., test results).
- **Final Payrolls**

- **Release of Claims**
- **Final Invoice**

2. PART 2 - PRODUCTS (Not Applicable)

3. PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01010

SECTION 01300

SUBMITTALS AND SUBSTITUTIONS

1. PART 1 - GENERAL

1.1. DESCRIPTION.

- 1.1.1. Work included: The Contractor shall provide submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.
- 1.1.2. Related work: Individual requirements for submittals also may be described in pertinent Sections of these Specifications and the Drawings.

1.2. QUALITY ASSURANCE.

1.2.1. Coordination of submittals:

- 1.2.1.1. Prior to each submittal, the Contractor shall carefully review and coordinate all aspects of each item being submitted.
- 1.2.1.2. The Contractor shall verify that each item and the submittal for it conform in all respects with the specified requirements.
- 1.2.1.3. By affixing his/her signature to the AF Form 3000, "Material Submittal Approval", the Contractor certifies that this coordination has been performed.

- 1.2.2. Substitutions: The Contractor shall set forth in writing the reason for any deviation from the contract requirements and annotate such deviation on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unidentified deviations. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this Work by the Contracting Officer.

- 1.2.3. "Or equal": Where the phrase "or equal" occurs in the Contract Documents, do not assume that substitute materials, equipment, or methods will be approved as equal until the item has been specifically approved for this work by the Contracting Officer.

- 1.3. SUBMITTALS: Neither the submittal nor the Contracting Officer's approval of the submittal shall be construed as relieving the Contractor from furnishing satisfactory material.

1.3.1. Certification of Compliance: A document, required of the Contractor, or through the Contractor, from a supplier, installer, manufacturer, or other lower tier Contractor, the purpose of which is to confirm the specified quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods, qualification of personnel, or verification of material suitability, in conformance with the contract requirements. This certification shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply; shall be dated after the award of this contract; and shall be signed by an appropriate official authorized to certify on behalf of the contractor, a subcontractor, a manufacturer, or a supplier.

1.3.2. Shop Drawings:

1.3.2.1. Scale and measurements: The Contractor shall make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work. These drawings shall graphically show the relationship of various components of the work, schematic diagrams of systems, details of fabrication, layouts of particular elements, connections, and other relational aspects of the work.

1.3.2.2. Types of prints required:

1.3.2.2.1. When reproducible shop drawings are required, submit required Shop Drawings in the form of one sepia transparency of each sheet plus three blueline or blackline prints of each sheet.

1.3.2.2.2. When reproducible shop drawings are not specified, submit the specified number of blueline or blackline prints of each sheet.

1.3.3. Samples: Provide sample(s) of both fabricated and unfabricated physical examples of materials, products, and units of work as complete units or as portions of units of work in the type and number specified. Such samples shall be identical to the precise article proposed to be provided and incorporated in the project.

1.3.4. Color Selection:

1.3.4.1. Unless the precise color and/or pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available in the specified products, submit accurate color and pattern charts to the Contracting Officer for selection.

1.3.4.2. All items requiring color and/or pattern approval shall be submitted at one time under a single submittal and shall be segregated and integrated in one package.

Unless otherwise specified, the Contractor shall submit for approval, three (3) packages showing finishes of all materials visible upon completion of this contract.

1.3.4.3. Approval of a color or pattern does not represent approval of the item in its entirety. When required by the AF Form 66, "Schedule of Material Submittals", or by the Contracting Officer, separate submittals shall be provided to demonstrate compliance with the contract terms. If an individual item (e.g., carpet) does not meet the specified salient features (e.g., weight), it will be disapproved and cannot be used even if its color or pattern has been previously approved.

1.3.5. Manufacturers' Recommendations: Submit all pertinent recommendations, including but not limited to, special notices and material safety data sheets (MSDS), installation instructions, cleaning requirements, maintenance instructions, safety precautions, etc. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents is being submitted for review.

1.3.6. Manufacturer's Warranty: In addition to all warranties specifically required by this project, the contractor shall submit all warranties normally proffered by manufacturers or suppliers, even if not specifically requested under this contract. See Special Contract Requirement entitled "Contract Closeout" for additional information.

1.3.7. Catalog Data: Catalog cuts shall be clearly marked to indicate the type, model, style, capacity, and all other pertinent data, including calculations, complete descriptions, and other documentation necessary to reflect full compliance with the requirements.

1.3.8. As-Built Drawings: The Contractor shall furnish the number of full-size sets of as-built blueline prints specified. The as-built prints shall be a record of the construction as installed and completed by the Contractor. They shall include all the information on the contract set of drawings and a record of all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the work, all additional work not appearing on the contract drawings, and all changes which were made after final inspection of the work. In the event the Contractor accomplishes additional work which changes the as-built conditions of the facility after submission of the as-built drawings, the Contractor shall furnish revised and/or additional drawings as required to depict as-built conditions. The requirements for these additional drawings will be the same as for the as-built drawings included in the original submission.

1.3.8.1. The prints shall show the following information, but not be limited thereto:

- The location and description of any utility lines or other installations of any kind or description known to exist within the construction area. The location includes dimensions to permanent features.

- The location and dimensions of any changes within the building or structure.
- Correct grade or alignment of roads, structures or utilities if any changes were made from contract plans.
- Correct elevations if changes were made in site grading.
- Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor including, but not limited to, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions or equipment foundations, etc.
- The topography and grades of all drainage installed or affected as a part of the project construction.
- All changes or modifications which result from the final inspection.
- Option: Where contract drawings or specifications allow options, only the option selected for construction shall be shown on the as-built drawings.

1.3.8.2. Preliminary As-built Prints: The Contractor shall maintain one set of paper prints to show the as-built conditions. These as-built marked prints shall be kept current and available on the jobsite at all times. All changes from the contract plans or approved shop drawings which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. The as-built marked prints will be jointly inspected for accuracy and completeness by the Contracting Officer's representative and a responsible representative of the construction Contractor prior to submission of each monthly pay request.

1.3.8.3. Final As-built Prints:

1.3.8.3.1. Not later than two (2) weeks prior to acceptance of the project by the Government, the Contractor shall deliver to the Contracting Officer the number of blueline prints specified, marked-up in red as actually constructed and marked-up specifications complete with amendments, to depict as-built conditions.

1.3.8.3.2. The Contractor shall also submit one set of shop drawings that in reality will be used as "construction record drawings". For example, Contractor developed shop drawings for fire protection system, lawn sprinkler system, mechanical room layouts, and other items which contain information such as wiring, control circuit diagrams, piping schematics, and other information useful to the government upon completion of the project.

1.3.8.3.3. Reproducibles, if required, shall be submitted on 30 inch x 42 inch (30" x 42") cronoflex or 3 mil double matte sheets.

1.3.8.3.4. If upon review, the drawings are found to contain errors and/or omissions, they shall be returned to the Contractor for corrections. The Contractor shall complete the corrections and return the drawings to the Contracting Officer with ten calendar days. If a satisfactory set of as-built drawings are not received within the time limits defined, no further payment will be made to the Contractor until this requirement is fully satisfied.

1.3.9. Reports of inspections or tests, including methods used, analysis, and interpretation of test results, calculations, and other documentation regarding the inspection and/or test shall be properly identified and appropriately recorded. Copies of laboratory test reports submitted with certificates shall be dated and contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies.

2. PART 2 - PRODUCTS: NO PRODUCTS ARE REQUIRED BY THIS PART.

3. PART 3 - EXECUTION

3.1. SUBMITTAL REGISTER: At the end of this section is one set of Air Force Forms 66 (AF66), "Schedule of Material Submittals", listing each item of equipment and material for which submittals are required by the specifications, drawings, and/or contract terms and conditions. The contractor shall identify a "required submission date" for each item specified. This form shall be coordinated and submitted with the AF Form 3064, "Progress Schedule", within 5 calendar days from start of work. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract.

3.2. TRANSMITTAL OF SUBMITTALS.

3.2.1. Each submittal shall be transmitted under an AF Form 3000 (AF3000), "Material Approval Submittal", and shall be prepared in accordance with the Instructions on the reverse of the form. The contractor shall provide all information required for identification and checking for compliance. Units of weights and measures used on all submittals shall be the same used in the contract drawings and specifications. Submittals shall be made in the respective number of copies to the Contracting Officer. Each submittal shall be complete and in sufficient detail to allow a ready determination of compliance with contract requirements.

3.2.2. The "Submission Number" entered on the AF3000 shall be three digits and consecutively numbered beginning with "001". The previous submission number is not used on new or initial material submittals.

3.2.3. When material is resubmitted for any reason, the Contractor shall also identify the Previous Submission Number".

3.2.4. The "Item No." shall correspond exactly to the "Line Number" specified on the AF66, Schedule of Material Submittals". Contractor shall fully complete the reference to the specifications or drawings and shall fully complete the description block.

3.2.5. Attached submittal data/information will be clearly identified or tabbed in order to properly evaluate the materials or articles. Each attachment will be numbered to correspond with the "Item Number" shown on the face of the AF3000.

3.2.6. Improper or incomplete material submittals will be returned for reaccomplishment.

3.3. **GROUPING OF SUBMITTALS.** Unless otherwise specified, the Contractor shall group submittals by specification section and/or associated items and transmit a single submission to assure that information is available for checking each item when it is received. Partial submittals will be rejected as not complying with the provisions of the Contract and a resubmittal of all items/requirements for that line item number shall be provided.

3.4. **TIMING OF SUBMITTALS.**

3.4.1. After approval of the AF66, submittals shall be provided as scheduled. Any delay to this schedule must be requested by the Contractor in writing, prior to the scheduled submission date, and a new submission date proposed. Such requests may be approved if the proposed new submission date is far enough in advance of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.

3.4.2. In scheduling, allow at least ten calendar days for review by the Contracting Officer following receipt of the submittal. More complex and/or technical submittals may require up to thirty calendar days for review.

3.5. **CONTRACTING OFFICER'S REVIEW.**

3.5.1. Review by the Contracting Officer does not relieve the Contractor from responsibility for errors which may exist in the submitted data.

3.5.2. The approval of submittals by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of construction, materials,

detailing, and other information are apparently satisfactory. Approval does not relieve the Contractor of the responsibility for any error, which may exist. The Contractor is fully responsible for the dimensions, material, and design necessary to ensure adequate connections, details, and satisfactory construction of all work.

- 3.5.3. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be given consideration unless accompanied by an explanation as to why a substitution is necessary. Such reconsideration will not necessarily result in a change to the submittal previously approved.
- 3.5.4. The contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies as specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, notice as required under the Contract Clause entitled "Changes" shall be promptly provided to the Contracting Officer.
- 3.5.5. Delays occasioned by Contractor non-compliance with these requirements shall be the sole responsibility of the Contractor. No delay damages or time extensions will be allowed for time lost due to late, inaccurate, or incomplete submittals.

Next page is 01300-8, the AF Forms 66 (Schedule of Material Submittals)

SECTION 02763

PAVEMENT MARKINGS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

FEDERAL SPECIFICATIONS (FS)

FS TT-B-1325

(Rev C; Notice 1) Beads (Glass Spheres) Retro-Reflective
(Metric)

FS TT-P-1952

(Rev D) Paint, Traffic and Airfield Marking, Waterborne
(Metric)

1.2 UNIT PRICES

1.2.1 Measurement

1.2.1.1 Pavement Striping and Markings

The unit of measurement for pavement striping and markings will be the number of square feet of reflective and nonreflective striping or marking actually completed and accepted by the Contracting Officer.

1.2.1.2 Removal of Pavement Markings

The unit of measurement for removal of pavement markings shall be the number of square feet of pavement markings actually removed and accepted by the Contracting Officer.

1.2.2 Payment

The quantities of pavement striping or markings, and removal of pavement markings determined as specified in paragraph Measurement, will be paid for at the contract unit price. The payment will constitute full compensation for furnishing all labor, materials, tools, equipment, appliances, and doing all work involved in marking pavements. Any striping or markings which are placed without reflective media, when reflective media is required, shall be removed and replaced at no cost to the Government. Striping or markings which do not conform to the alignment and/or location required shall be removed and replaced at no cost to the Government.

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTALS AND SUBSTITUTIONS:

Equipment Lists; GA.

Lists of proposed equipment, including descriptive data, and notifications of proposed Contractor actions as specified in this section. List of removal equipment shall include descriptive data indicating area of coverage per pass, pressure adjustment range, tank and flow capacities, and safety precautions required for the equipment operation.

Mixing, Thinning and Application Instructions; FIO.

Manufacturer's current printed product description and Material Safety Data Sheets (MSDS) for each type paint/color proposed for use.

Qualifications; FIO.

Document certifying that personnel are qualified for equipment operation and handling of chemicals.

Material Tests Reports; GA.

Certified copies of the test reports, prior to the use of the materials at the jobsite. Testing shall be performed in an approved independent laboratory.

Volatile Organic Compound (VOC) Content Certificates; FIO.

Certificate stating that the proposed pavement marking paint meets the VOC regulations of the local Air Pollution Control District having jurisdiction over the geographical area in which the project is located.

1.4 DELIVERY AND STORAGE

All materials shall be delivered and stored in sealed containers that plainly show the designated name, formula or specification number, batch number, color, date of manufacture, manufacturer's name, and directions, all of which shall be plainly legible at time of use.

1.5 EQUIPMENT

All machines, tools and equipment used in the performance of the work shall be approved and maintained in satisfactory operating condition. Equipment operating on roads and runways shall display low speed traffic markings and traffic warning lights.

1.5.1 Paint Application Equipment

The equipment to apply paint to pavements shall be a self-propelled or mobile-drawn pneumatic spraying machine with suitable arrangements of atomizing nozzles and controls to obtain the specified results. The machine shall have a speed during application not less than 5 mph, and shall be capable of applying the stripe widths indicated, at the paint coverage rate specified in paragraph APPLICATION, and of even uniform thickness with clear-cut edges. The equipment used to apply the paint binder to airfield pavements shall be a self-propelled or mobile-drawn pneumatic spraying

machine with an arrangement of atomizing nozzles capable of applying a line width at any one time in multiples of 6 inches, from 6 inches to 36 inches. The paint applicator shall have paint reservoirs or tanks of sufficient capacity and suitable gauges to apply paint in accordance with requirements specified. Tanks shall be equipped with suitable air-driven mechanical agitators. The spray mechanism shall be equipped with quick-action valves conveniently located, and shall include necessary pressure regulators and gauges in full view and reach of the operator. Paint strainers shall be installed in paint supply lines to ensure freedom from residue and foreign matter that may cause malfunction of the spray guns. The paint applicator shall be readily adaptable for attachment of an air-actuated dispenser for the reflective media approved for use. Pneumatic spray guns shall be provided for hand application of paint in areas where the mobile paint applicator cannot be used.

1.5.2 Reflective Media Dispenser

The dispenser for applying the reflective media shall be attached to the paint dispenser and shall operate automatically and simultaneously with the applicator through the same control mechanism. The dispenser shall be capable of adjustment and designed to provide uniform flow of reflective media over the full length and width of the stripe at the rate of coverage specified in paragraph APPLICATION, at all operating speeds of the applicator to which it is attached.

1.5.3 Marking Removal Equipment

The removal of paint shall be accomplished by the use of high pressure water techniques. The Contractor may also remove thickly built-up, loosely adhered paint by scraping. The use of chemicals to remove paint will not be permitted. The water-blasting equipment shall be mounted on rubber tires and shall be capable of removing markings from the pavement without damaging the pavement surface, joint seals, grooves, or lights. The water-blasting equipment shall perform on smooth or grooved surfaces at the removal rate greater than 3,000 SF per hour under normal conditions. The ultra high pressure water jets used in the cleaning process shall be mounted on a rotating spray bar producing an adjustable stream of water under pressures greater than 30,000 psi at less than 10 gallons per minute (gpm).

1.5.4 Traffic Controls

Suitable warning signs shall be placed near the beginning of the worksite and well ahead of the worksite for alerting approaching traffic from both directions. Small markers shall be placed along newly painted lines to control traffic and prevent damage to newly painted surfaces. Painting equipment shall be marked with large warning signs indicating slow-moving painting equipment in operation.

1.6 MAINTENANCE OF TRAFFIC

The performance of work in the controlled zones of airfields shall be coordinated with the Contracting Officer and with the Flight Operations Officer. Verbal communications shall be maintained with the control tower before and during work in the controlled zones of the airfield. The control tower shall be advised when the work is completed. A radio for this purpose will be provided by the Government.

1.7 WEATHER LIMITATIONS FOR REMOVAL

Pavement surface shall be free of snow, ice, or slush. Surface temperature shall be at least 40 degrees F and rising at the beginning of operations. Operation shall cease during thunderstorms. Water blasting shall cease where surface water accumulation alters the effectiveness of material removal.

PART 2 PRODUCTS

2.1 PAINT

The paint shall be homogeneous, easily stirred to smooth consistency, and shall show no hard settlement or other objectionable characteristics during a storage period of 6 months. Paints for airfields, roads, and streets shall conform to FS TT-P-1952, color as indicated. Pavement marking paints shall comply with applicable state and local laws enacted to ensure compliance with Federal Clean Air Standards. Paint materials shall conform to the restrictions of the local Air Pollution Control District.

2.2 REFLECTIVE MEDIA

Reflective media for airfields shall conform to FS TT-B-1325, Type I, Gradation A.

2.3 SAMPLING AND TESTING

Materials proposed for use shall be stored on the project site in sealed and labeled containers, or segregated at source of supply. If materials are approved based on reports furnished by the Contractor, samples may be retained by the Government for possible future testing should the material appear defective during or after application.

PART 3 EXECUTION

3.1 SURFACE PREPARATION

Surfaces to be marked shall be thoroughly cleaned before application of the pavement marking material. Dust, dirt, and other granular surface deposits shall be removed by sweeping, blowing with compressed air, rinsing with water or a combination of these methods as required. Rubber deposits, surface laitance, existing paint markings, and other coatings adhering to the pavement shall be completely removed with scrapers, wire brushes, sandblasting, approved chemicals, or mechanical abrasion as directed. Areas of old pavement affected with oil or grease shall be scrubbed with several applications of trisodium phosphate solution or other approved detergent or degreaser, and rinsed thoroughly after each application. After cleaning, oil-soaked areas shall be sealed with cut shellac to prevent bleeding through the new paint. Pavement surfaces shall be allowed to dry, when water is used for cleaning, prior to striping or marking. Surfaces shall be recleaned, when work has been stopped due to rain.

3.2 APPLICATION

All pavement markings and patterns shall be placed as shown on the plans.

3.2.1 Paint

Paint shall be applied to clean, dry surfaces, and only when air and pavement temperatures are above 40 degrees F and less than 95 degrees F. Paint temperature shall be maintained within these same limits. Paint shall be applied pneumatically with approved equipment at rate of coverage specified. The Contractor shall provide guide lines and templates as necessary to control paint application. Special precautions shall be taken in marking numbers, letters, and symbols. Edges of markings shall be sharply outlined.

3.2.1.1 Rate of Application

a. Reflective Markings: Pigmented binder shall be applied evenly to the pavement area to be coated at a rate of 105 plus or minus 5 square feet per gallon. Glass spheres shall be applied uniformly to the wet paint on airfield pavement at a rate of 8 plus or minus 0.5 pounds of glass spheres per gallon of paint.

b. Nonreflective Markings: Paint shall be applied evenly to the pavement surface to be coated at a rate of 105 plus or minus 5 square feet per gallon.

3.2.1.2 Drying

The maximum drying time requirements of the paint specifications will be strictly enforced to prevent undue softening of bitumen, and pickup, displacement, or discoloration by tires of traffic. If there is a delay in drying of the markings, painting operations shall be discontinued until cause of the slow drying is determined and corrected.

3.2.2 Reflective Media

Application of reflective media shall immediately follow application of pigmented binder. Drop-on application of glass spheres shall be accomplished to insure that reflective media is evenly distributed at the specified rate of coverage. Should there be malfunction of either paint applicator or reflective media dispenser, operations shall be discontinued immediately until deficiency is corrected.

3.3 MARKING REMOVAL

Pavement markings shall be removed in the areas shown on the drawings. Built up paint thickness may be up to 1/8" thick. Removal of marking shall be as complete as possible, but be at least 90% for PCC pavements and 80% for asphalt pavements without damage to the pavement surface, joint seals, grooves, or lights. Aggregate shall not be exposed by the removal process. Any items damaged by the removal process shall be repaired or replaced (by a method approved by, and to the satisfaction of the Contracting Officer) by the Contractor at his or her expense. All water and debris generated by this process shall be contained to the immediate work area allowing no runoff to the non-paved shoulders or to drain inlets. After the markings are removed, the cleaned pavement surfaces shall exhibit adequate texture for remarking as specified in paragraph SURFACE PREPARATION. Contractor shall demonstrate removal of pavement marking in an area designated by the Contracting Officer. The demonstration area will become the standard for the remainder of the work.

3.3.1 Equipment Operation

Equipment shall be controlled and operated to remove markings from the pavement surface, prevent dilution or removal of binder from underlying pavement, and prevent emission of blue smoke from asphalt or tar surfaces.

3.3.2 Cleanup and Waste Disposal

The worksite shall be kept continuously clean of debris and waste from the removal operations as to leave it ready for immediate aircraft use. All debris generated by the removal process shall be collected, containerized, and disposed of in accordance with Section 01010. The remaining water from the removal process shall be filtered through a micron filter to remove all solid debris. The remaining water will then be discarded at a pre-determined and approved area near the operation. Any stains generated by this process shall be removed by the Contractor at his or her expense.

END OF SECTION 02763

SECTION 02951

RUNWAY RUBBER REMOVAL

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "GA" designation: submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL AND SUBSTITUTIONS:

Rubber Removal Equipment; GA.

A list of construction equipment including item names and descriptions.

Runway Rubber Removal; GA.

Statements regarding the suitability of materials, personnel, and methods proposed to accomplish the work. For chemical removal, submit product information, manufacturer's instructions/recommendations, and MSDS on the chemical. Also submit proof that the chemical has been approved by the EPA for this type of process and submit a list of prior airfield rubber removal jobs on which this chemical process has been used.

1.3 MAINTENANCE OF TRAFFIC

1.3.1 Operation and Performance

The operation of equipment and the performance of work upon and in the vicinity of airfields shall be coordinated daily with the Contracting Officer and with the Flight Operations Officer. Neither equipment nor personnel shall use any portion of an airfield without permission of these officers. In all cases, verbal communication shall be maintained with the control tower before and during work in the vicinity of the airfield.

1.3.2 Landing and Take-Offs

Emergency landings and take-offs shall take precedence over all Contractor operations. When notified of an emergency situation, the Contractor shall cease all rubber removal operations and immediately clear the runway of all equipment and personnel for a distance of at least 100 feet from the edge of the runway.

1.4 RUBBER REMOVAL EQUIPMENT

1.4.1 Mechanical Rubber Removal Equipment

Mechanical rubber removal shall be accomplished by ultra high pressure waterblasting. Equipment to be used on asphalt concrete shall be controlled to remove rubber accumulations and minimize disturbance to asphalt mixtures. Equipment to be used on Portland cement concretes shall be controlled to remove rubber accumulations and prevent removal of hardened paste from the concrete. The water-blasting equipment shall be mounted on rubber tires and shall be capable of removing rubber from the pavement without damaging the pavement surface, joint seals, grooves, or lights. The water-blasting equipment shall perform on smooth or grooved surfaces at the removal rate greater than 8,000 SF per hour under normal conditions. The ultra high pressure water jets used in the cleaning process shall be mounted on a rotating spray bar producing an adjustable stream of water under pressures greater than 30,000 psi at less than 10 gallons per minute (gpm).

1.4.2 Chemical Rubber Removal Equipment

Chemical equipment shall be capable of application and removal of chemicals from the pavement surface and shall leave only non-toxic biodegradable residue. The removal rate shall be equal to or greater than 8,000 SF per hour on smooth or grooved surfaces under normal conditions.

1.5 DELIVERY AND STORAGE

Materials that are required in the approved rubber removal process shall be delivered in original manufacturer's containers and shall be labeled with appropriate EPA, OSHA, or other agency warnings, if applicable. Materials shall be protected from the environment until their use is required during execution of the work.

1.6 UNIT PRICES

1.6.1 Measurement

Rubber removal will be measured by the number of square feet of runway to be cleaned.

1.6.2 Payment

Rubber removal will be paid for at the contract unit price per square foot of runway rubber satisfactorily removed.

1.7 WEATHER LIMITATIONS

Pavement surface shall be free of snow, ice or slush. Surface temperature shall be at least 40 degrees F and rising at the beginning of operations. Operation shall cease during thunderstorms. Operation shall cease during rainfall except for waterblasting and removal of previously applied chemicals. Waterblasting shall cease where surface water accumulation alters the effectiveness of material removal.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 RUBBER REMOVAL

The pavement surface may be of Portland cement, or asphalt mixtures. Chemical methods, if used, shall be compatible with pavement materials, the environment and working personnel. Close control of water pressure and blasting time/duration shall be used to prevent disintegration damage to the pavement. Removal of marking shall be as complete as possible, but be at least 90% for PCC pavements and 80% for asphalt pavements without damage to the pavement surface, joint seals, grooves, or lights. Aggregate shall not be exposed by the removal process. Any items damaged by the removal process shall be repaired or replaced (by a method approved by, and to the satisfaction of the Contracting Officer) by the Contractor at his or her expense. All water and debris generated by this process shall be contained to the immediate work area allowing no runoff to the non-paved shoulders or to drain inlets. The Contractor shall demonstrate the ability to remove rubber at a touchdown area of the runway selected by the Contracting Officer; at least one site per runway will be chosen. The surface texture of the cleaned demonstration area will be compared to that of non-rubber traffic areas to determine satisfactory completion of the removal operation. After approval of the Contractor's operations the cleaned area will become the standard for rubber removal and final surface texture for the remainder of work.

3.2 CLEANUP AND WASTE DISPOSAL

The worksite shall be kept continuously clean of debris and waste from the removal operations as to leave it ready for immediate aircraft use. All debris generated by the removal process shall be collected, containerized, and disposed of in accordance with Section 01010. The remaining water from the removal process shall be filtered through a micron filter to remove all solid debris. The remaining water will then be discarded at a pre-determined and approved (by the Contracting Officer) area near the operation. Any stains generated by this process shall be removed by the Contractor at his or her expense.

END OF SECTION

MAINTAIN AIRFIELD PAVEMENTS IDIQ
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